IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Docket No. 200701902-2)

In the Application of:

Bindu Rama Rao

Serial No.: 10/706,219

Filed: November 12, 2003

For: FIRMWARE UPDATE IN ELECTRONIC DEVICES EMPLOYING SIM CARD FOR SAVING METADATA INFORMATION

Group Art Unit: 2192

Examiner: KENDALL, CHUCK O.

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APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully requests that the Board of Patent Appeals and Interferences reverse the final rejection of claims 1-29 of the present application. This Appeal Brief is timely because it is being filed within two months from the July 31, 2007 date of filing the Notice of Appeal.

REAL PARTY IN INTEREST
(37 C.F.R. § 41.37(c)(1)(i))

The real party in interest is Hewlett-Packard Development Company, L.P., a Texas Limited Partnership, assignee of the present application, having a place of business at Houston, Texas.

RELATED APPEALS AND INTERFERENCES
(37 C.F.R. § 41.37(C)(1)(II))

Not Applicable.

STATUS OF THE CLAIMS
(37 C.F.R. § 41.37(C)(1)(III))

The present application includes pending claims 1-29, all of which have been rejected.[1] Applicant identifies claims 1-29 as the claims that are being appealed. The text of the pending claims is provided in the Claims Appendix.

STATUS OF AMENDMENTS
(37 C.F.R. § 41.37(C)(1)(IV))

Subsequent to the final rejection of claims 1-29 mailed May 2, 2007, Applicant did not file any amendments.

[1] *See* May 2, 2007 Final Office Action.

SUMMARY OF CLAIMED SUBJECT MATTER
(37 C.F.R. § 41.37(c)(1)(v))

Independent claim 1 recites the following:

An updatable electronic device[2] comprising:

a memory comprising at least one of firmware and software;[3]

at least one firmware component,[4] functioning to update at least a portion of at least one of firmware and software using update information stored in the memory;[5]

an interface for communicatively coupling to a removable electronic memory device[6]; and

wherein the removable electronic memory device comprises information related to the updating of the at least a portion of the at least one of firmware and software.[7]

Independent claim 11 recites the following:

A method of updating an updatable electronic device comprising a memory containing at least one of firmware and software, and a user removable electronic memory device,[8] the method comprising:

retrieving information from the user removable electronic memory device;[9]

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[2] *See* present application, *e.g.*, at page 7, lines 7-12; and Figure 1, reference numeral 109.
[3] *See id., e.g.*, at page 7, lines 7-13; and Figure 1, reference numeral 133.
[4] *See id., e.g.*, at page 3, lines 5-11; page 7, lines 12-16; and Figure 1, reference numeral 131.
[5] *See id., e.g.*, at page 7, lines 13-16; page 7, lines 17-29; page 10, lines 26-28; page 10, line 32 to page 11, line 17; page 11, lines 27-30; and Figure 2, reference numeral 219.
[6] *See id., e.g.*, at page 3, lines 2-4; page 8, lines 8-20; and Figure 1, reference numeral 111.
[7] *See id., e.g.*, at page 7, lines 17-22; page 8, line 27 to page 9, line 6; page 12, lines 4-10; and Figure 1, reference numeral 127.
[8] *See id., e.g.*, at page 7, lines 7-11; page 8, lines 8-20; and Figure 1, reference numeral 109.
[9] *See id., e.g.*, at page 10, lines 20-26; and Figure 2, reference numeral 217.

determining whether update information for updating the at least one of firmware and software is available in the memory, using information from the user removable electronic memory device;[10]

performing an update of at least a portion of the at least one of firmware and software using at least information from the user removable electronic memory device, if update information for updating the at least one of firmware and software is available in the memory;[11] and

refraining from performing an update of at least a portion of the at least one of firmware and software, if update information for updating the at least one of firmware and software is not available in the memory.[12]

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(C)(1)(VI))

Claims 1-3, 5-17, 20-25, and 27 stand rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,418,837 ("Johansson").[13] Claims 4, 18, and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Johansson in view of United States Patent No. 6,556,842 ("Ericsson").[14] Claims 26 and 28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Johansson as applied in claims 11 and 25 and in view of United States Patent No. 6,640,334 B1 ("Rasmussen").[15] Claim 29 stands rejected under 35 U.S.C. 103(a) as

[10] *See id., e.g.,* at page 10, lines 20-26; and Figure 1, reference numeral 219.
[11] *See id., e.g.,* at page 10, lines 20-26; page 10, line 30 to page 11, line 17; page 11, lines 27-30; and Figure 2, reference numeral 219.
[12] *See id., e.g.,* at page 10, lines 27-29; and Figure 2, reference numeral 215.
[13] *See* May 2, 2007 Office Action at page 2.
[14] *See id.* at page 11.
[15] *See id.* at page 12.

being unpatentable over Johansson in view of Ericsson as applied in claim 19 and further in view of Rasmussen.[16]

ARGUMENT
(37 C.F.R. § 41.37(c)(1)(vii))

The Examiner has maintained the rejections of the pending claims, as indicated above. The rejections are improper, however, at least because none of the cited references describe, teach, or suggest, for example, "at least one firmware component, functioning to update at least a portion of at least one of firmware and software using update information stored in the memory," as recited in claim 1, or "determining whether update information for updating the at least one of firmware and software is available in the memory, using information from the user removable electronic memory device," as recited in claim 11. (underline added)

In the Applicant's February 14, 2007 Amendment, Applicant amended claims 1, 2, 3, 5, 7, 11, 16, 18, and 19. *See* February 14, 2007 Amendment at pages 2-5 (claims 1, 2, 3, 5, 7, 11, 16, 18, and 19 are included in their amended form in the Claims Appendix). Applicant also added new claims 24-29. *See id.* at page 6. The May 2, 2007 Final Office Action's recitation of the claims does not include any of the amendments to the claims, but does address new claims 24-29. *Compare id.* at pages 2-5, *with* May 2, 2007 Office Action at pages 2-14. While the Office Action does independently recognize amendments to independent claims 1 and 11 in the Response to Arguments section, *see id.* at pages 14-15, the Office Action does not address the amended versions of claims 2, 3, 5, 7, 16, 18, and 19, and thus has not provided a basis for their rejection. For at least these reasons, Applicant respectfully submits that claims 2, 3, 5, 7, 16, 18, and 19, and any claims which depend therefrom, are allowable.

[16] *See id.* at page 13.

I. Johansson Does Not Anticipate Claims 1-3, 5-17, 20-25, and 27

The Applicant now turns to the rejection of claims 1-3, 5-17, 20-25, and 27 as being anticipated by Johansson. "'A claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.'" *See* Manual of Patent Examining Procedure (MPEP) at 2131 (internal citation omitted) (emphasis added). Further, "'[t]he identical invention must be shown in as complete detail as it is contained ... in the claim.'" *See id.* (internal citation omitted).

Johansson discusses "a software upgrading module card adapted to be temporarily connected to the mobile telephone by insertion into the module reader. The card comprises means for storing upgrading software to be transmitted into the main memory...." *See* Johansson at Abstract (underline added). As Johansson explains, "[t]he term 'upgrading' is used herein to refer to providing new software to the mobile telephone, whether that software relates to changes or corrections to existing software or to software providing new features or adding access to new functions." *Id.* at column 3, lines 42-46 (underline added).

Johansson's "upgrading software" is stored in memory (15' of Figures 1A and 1B) of the "software upgrading module card" (SUM card 22 of Figure 1A, 22' of Figure 1B), and is transferred into the memory (15 of Figure 1A) of the mobile telephone terminal. The Applicant respectfully submits that the "upgrading software" of Johansson is not present in the memory of the mobile telephone terminal (15 of Figure 1A) before an upgrade and, therefore, that Johansson fails to teach or suggest that the mobile telephone terminal can "...update at least a portion of at least one of firmware and software using update information stored in the memory" of the updatable electronic device, as recited in Applicant's claim 1. (underline added)

The Office Action references Figure 3 and column 7, lines 13-16, in support of its assertion that Johansson teaches "at least one firmware component, functioning to update at least a portion of at least one of firmware and software using update information stored in the memory," as recited in Claim 1. *See* May 2, 2007 Office Action at page 3. Specifically, the Office Action references the portion of Johansson which reads: "[t]he routine then changes all the software in the mobile terminal...." *See id.* (citing Johansson at column 7, lines 13-14). The referenced section describes Figure 3 of Johansson, which is displayed below:

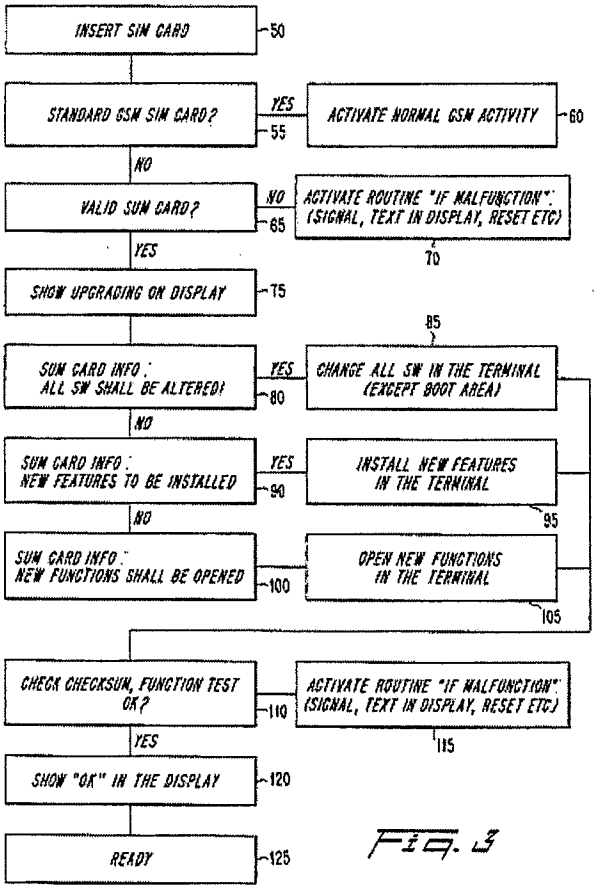

Fig. 3

In the context of the referenced quote, Johansson describes steps 80, 85, 90, and 95 in Figure 3 as follows:

> If SUM card information is detected which indicates that the software in the mobile terminal is to be changed, for example,

> for providing solutions to software bugs, it is displayed on display 5 that "all software shall be altered" at step 80. The routine then changes all the software in the mobile terminal except that in the boot area in step 85 from information provided in the upgrading software stored in the SUM card.
>
> If the answer at step 80 is no, it is detected at step 90 whether new features are to be installed in the mobile telephone. If so, the appropriate display is presented on the mobile telephone in display 5, and control proceeds to step 95. At step 95, the new features are installed in the mobile terminal from information provided in the upgrading software stored in the SUM card.

Johansson at column 7, lines 9-16 (underline added).

As reflected in Figure 3 and the above excerpt, the upgrade methods used by Johansson check the SUM card information in steps 80 and 90 before changing all the software or installing "new features," respectively. Conversely, none of the above references disclose the use of upgrade information in the memory of the mobile telephone terminal while performing an upgrade. Johansson does not describe, teach, or suggest "at least one firmware component, functioning to update at least a portion of at least one of firmware and software using update information stored in the memory" of an updatable electronic device, as recited in Applicant's claim 1.

Applicant also respectfully submits that Johansson fails to describe, teach, or suggest "determining whether update information for updating the at least one of firmware and software is available in the memory, using information from the user removable electronic memory device," as recited in Applicant's claim 11. (underline added) With respect to this element of claim 11, the Office Action references the following underlined portion of an excerpt from Johansson: "If the SUM card is valid for upgrading, the upgrading functions would be displayed

on the display 5 at step 75." *See* May 2, 2007 Office Action at page 6 (citing Johansson at column 7, lines 7-8 (underline added)). This excerpt immediately precedes the two paragraphs quoted above. As the context of the reference reveals, Johansson discloses the utilization of information on the SUM card, instead of information stored in the memory of the mobile telephone terminal, before or in performing step 85—changing all the software (except the boot area)—or step 95—installing the new features.

The Office Action includes the following response to Applicant's arguments in the February 14, 2007 Amendment concerning the update information limitations in claims 1 and 11:

> Examiner believes that Johansson does in fact disclose this limitation. In 2:35–40, Johansson discloses a module reader within the device which is communicatively coupled and which receives update information in the storage memory that is transmitted to the main memory of the mobile device. Applicant's plain language of claims merely discloses update information stored in the memory, and this is taught by Johansson. Also Module reader is to read the update information from the storage card, hence being able to determine if the update information is available is also taught as well.

Id. at page 15.

Claim 1 recites "at least one firmware component, functioning to update at least a portion of at least one of firmware and software using update information stored in the memory." (underline added) Claim 11 recites "determining whether update information for updating the at least one of firmware and software is available in the memory, using information from the user removable electronic memory device." Applicant respectfully submits that neither claim "merely discloses update information stored in the memory," as characterized in the Office Action.

As the Office Action notes, "Module reader is to read the update information from the storage card..."—not the main memory of the mobile telephone. *See id.* (underline added). The portion of Johansson to which the Office Action cites, namely "2:35-40," bears this out.

> According to one embodiment of the present invention, an apparatus is provided for upgrading a mobile telephone, the mobile telephone having a main memory, the apparatus comprising a module reader provided in the mobile telephone and a software upgrading module card adapted to be temporarily connected to the mobile telephone by insertion into the module reader. The card comprises means for storing upgrading software to be transmitted into the main memory in the mobile telephone. The apparatus further includes means provided in the mobile telephone for transmitting the upgrading software into the main memory.

Johansson at column 2, lines 30-41 (underline added). While the above reference discloses transferring upgrading software from the card to the main memory, neither the above cite nor any other portion of Johansson describes, teaches, or suggests "at least one firmware component, functioning to update at least a portion of at least one of firmware and software using update information stored in the memory" of an updatable electronic device or "determining whether update information for updating the at least one of firmware and software is available in the memory..." of an updatable electronic device, "...using information from the user removable electronic memory device," as recited in claims 1 and 11, respectively. (underline added)

Therefore, Johansson does not anticipate claims 1 or 11 for at least the reasons set forth above. Because claims 2-10 and 24-26, and claims 12-23 and 27-29 depend, respectively, from allowable claims 1 and 11, Applicant respectfully submits that claims 2-10, 12-23, 24-26 and 27-29 are also allowable over Johansson for at least the above reasons.

II. Johansson Does Not Anticipate Claims 2, 5, 7, 16, 24, 25, and 27

Applicant next turns to the rejection of claims 2, 5, 7, 16, 24, 25, and 27 as being anticipated by Johansson. Claims 2, 5, 7, 16, 24, 25, and 27 should be in condition for allowance for at least the reasons discussed above.

Each of claims 2, 5, 7, 16, 24, 25, and 27 include a reference to either the "update information stored in the memory," as recited in claim 1, or the step of "determining whether update information for updating the at least one of firmware and software is available in the memory," as recited in claim 11. (underline added) As noted above, a "'claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.'" *See* MPEP at 2131 (internal citation omitted).

The Office Action's discussion of claims 2, 7, 16, 24, 25, and 27 further illustrates that Johansson does not describe, teach, or suggest "at least one firmware component, functioning to update at least a portion of at least one of firmware and software using update information stored in the memory" of an updatable electronic device or "determining whether update information for updating the at least one of firmware and software is available in the memory..." of an updatable electronic device, "...using information from the user removable electronic memory device," as recited in claims 1 and 11, respectively.

The Office Action's discussion of claim 2 refers to the same portions of Johansson addressed in Argument Section I. *See* May 2, 2007 Office Action at page 3 (citing Johansson at Figure 3, the text associated with Figure 3, and column 7, lines 13-16). As discussed above, each reference reiterates that Johansson discloses using information on the SUM card, not the memory of the mobile terminal, to perform the upgrade.

In addressing claim 5, the Office Action asserts that "'upgrading data' may be stored in the SUM card, col. 4, lines 7-14, e.g. see Fig. 213, and associated text." *See id.* at page 4. According to Johansson, the "upgrading data" is stored in the SUM card, not in the memory of the mobile terminal.

With respect to claim 7, the Office Action cites to Figure 3, the text associated with Figure 3, and the portion of Johansson which reads: "If the SUM card is valid for upgrading, the upgrading functions would be displayed on the display...." *See id.* at page 4 (citing Johansson at column 7, lines 7-8). Here again, Johansson is looking to the SUM card for upgrade information and not the memory of mobile terminal.

In discussing the update information with respect to claim 16, the Office Action again cites to a portion of Johansson which discloses "identification data" stored on a SUM card. *See id.* at page 8 (citing Johansson at column 4, lines 3-6). Claim 11, from which claim 16 depends, clearly recites "determining whether update information ... is available in the memory..." of an updatable electronic device. With respect to claims 24 and 27, the Office Action submits that update information is the same as upgrade software. *See id.* at page 10. However, the upgrade software in Johansson is stored on the SUM card before upgrading. *See* Johansson, *e.g.*, at column 7, lines 13-16 ("The routine then changes all the software in the mobile terminal except that in the boot area in step 85 from information provided in the upgrading software stored in the SUM card." (underline added)).

In addressing claim 25, the Office Action cites to a portion of Johansson, which reads: "The CPU 225 in the SUM card 22' can then be used to check that correct data is transferred into the telephone by comparing the data received from the telephone with the data stored in the SUM memory 15'. In the case of an error, the CPU 225 in the SUM card 22' can order a new data

transfer." *See id.* (citing Johansson at column 5, lines 35-40). The data on the SUM card 22' does not "...comprise[] information identifying the source of the update information received by the electronic device," as recited in claim 25. As discussed above, the "upgrading software" of Johansson is not present in the memory of the mobile telephone terminal (15 of Figure 1A) before an upgrade and, therefore, Johansson fails to teach or suggest that the mobile telephone terminal can "...update at least a portion of at least one of firmware and software using update information stored in the memory" of an updatable electronic device as recited in Applicant's claim 1 from which claim 25 depends.

Thus, for at least the above reasons, the Examiner has not established a prima facie case of anticipation with respect to claims 2, 5, 7, 16, 24, 25, and 27. Applicant respectfully requests reconsideration of the rejection of claims 2, 5, 7, 16, 24, 25, and 27, and any of the claims that depend therefrom, for at least these reasons.

III. The Proposed Combination of Johansson and Ericsson Does Not Render Claims 4, 18, and 19 Unpatentable

The Applicant now turns to the rejection of claims 4, 18, and 19 as being unpatentable over Johansson in view of Ericsson. Initially, Applicant respectfully submits that claims 4, 18, and 19 should be in condition for allowance for at least the reasons discussed above.

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure (MPEP) states the following:

> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The

> teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art.

See MPEP § 2142. Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

Id.

A. The Proposed Combination of References Does Not Render Claim 4 Unpatentable

Johansson does not describe, teach, or suggest "[t]he device of claim 3 wherein the communication interface is a wireless communication interface," as recited in claim 4. The Office Action acknowledges that Johansson does not disclose this limitation. *See* May 2, 2007 Office Action at page 11. To overcome this deficiency in Johansson, the Office Action cites Ericsson.

Ericsson "relates to communication in ... a cellular network in which Localized Service Areas (LSAs) have been specified." *See* Ericsson at column 1, lines 10-12. The Office Action points to Ericsson's Abstract, Figure 2, and the text associated with Figure 2 as disclosing the limitations that are missing from Johansson. *See* May 2, 2007 Office Action at page 11.

Ericsson's Abstract reads as follows:

> A method in a cellular telecommunications network in which at least one Localized Service Area, LSA, has been specified, each LSA comprising one or more cells, comprises the steps of determining if information regarding an LSA has been changed,

> identifying at least one subscriber belonging to this LSA, and transmitting change information to said at least one subscriber belonging to the LSA to upgrade information on a SIM card held by this subscriber. Preferably an indicator is set to indicate if the subscriber belonging to the LSA needs the update information for the type of change made and transmitting update information only if there is such a need. For example, the list of cells belonging to an LSA only needs to be updated if cell information is stored on the SIM card. A node for carrying out the method is also disclosed.

See Ericsson at Abstract (underline added).

Figure 2 "is a block diagram of a part of a cellular communications network," which includes a mobile terminal 11, a base station 13, a mobile services switching centre 17, and a home location register 19 in wireless communication. *See id.* at column 3, lines 35-47. According to Ericsson, "[t]he information about the allowed LSA is stored on the SIM card in the mobile terminal 1, and in the Home Location Register (HLR) in the network," where both the SIM card and the HLR may be updated wirelessly. *See id.* at column 3, lines 18-21 and lines 48-55. Ultimately, Ericsson discloses a mobile terminal capable of receiving information wirelessly about an allowed LSA and storing the information on a SIM card in the mobile terminal. *See id.* at column 3, lines 35-55.

The Office Action references the following portion of Ericsson:

> Updating the SIM card from the SMC requires manual work to identify the SIM cards that are to be updated and to send out the SMS or USSD messages and the manual establishment of a connection to each mobile terminal that is to be updated. Returning the SIM card to the operator by post is time consuming and requires even more manual work. An application of SMS is the SIM data download feature, which is used to update SIM cards.

> It is an object of the present invention to provide a simplified way of ensuring that each subscriber always has the correct information regarding his/her allowed LSA.

See May 2, 2007 Office Action at 11 (citing Ericsson at column 1, line 62 – column 2, line 5 (underline added)). The Office Action asserts "[i]t would have been obvious to one with ordinary skill in the art at the time of the invention to wirelessly update the device as claimed in order to ensure timely updates through the air and because returning the SIM card to the operator by post for updates is time consuming." *Id.*

At best, the portions of Ericsson relied on in the Office Action disclose storing information on a SIM card, not in the mobile terminal's memory. Consequently, the proposed combination of Johansson and Ericsson does not describe, teach, or suggest "a wireless communication device," as recited in claim 4, "for receiving the update information," as recited in claim 3 from which claim 4 depends, which is "stored in the memory" of an updatable electronic device, as recited in claim 1 from which claim 3 depends.

Thus, for at least these reasons, Applicant respectfully submits that the Office Action has not established a prima facie case of obviousness with respect to claim 4. The proposed combination of Johansson and Ericsson does not render claim 4 unpatentable.

B. The Proposed Combination of References Does Not Render Claims 18 and 19 Unpatentable

Applicant now turns to claims 18 and 19. Johansson does not describe, teach, or suggest "receiving update information comprising an update package from a server," as recited in claim 18, or "wherein the receiving is performed using a wireless network; and the information from the user removable electronic memory device comprises the location of at least one of the update

package and the server," as recited in claim 19 which depends from claim 18. The Office Action acknowledges that Johansson does not disclose these limitations. *See id.*

To overcome this deficiency in Johansson, the Office Action again cites to the same portions of Ericsson discussed above in Argument Section III, A. *See id.* at pages 11-12. Applying the same analysis, the proposed combination of Johansson and Ericsson does not describe, teach, or suggest "receiving update information," as recited in claim 18, which may be "available in the memory" of an updatable electronic device, as recited in claim 11 from which claim 18 depends.

With respect to claim 19, the Office Action references with particularity the portion of Ericsson which reads: "the information about each subscriber's allowed LSA ... is stored in the [SIM] card." *See id.* at page 12 (citing Ericsson at column 1, lines 24-26). As defined in Ericsson, a Localized Service Area (LSA) comprises one or more cells in a cellular network, not a location of an update package or a server. *See* Ericsson at column 1, lines 13-14. Consequently, the proposed combination of Johansson and Ericsson does not describe, teach, or suggest the limitation wherein "the information from the user removable electronic memory device comprises the location of at least one of the update package and the server," as recited in claim 19.

Thus, for at least these reasons, Applicant respectfully submits that the Office Action has not established a prima facie case of obviousness with respect to claim 18 or claim 19. Indeed, the proposed combination of Johansson and Ericsson does not render claims 18 and 19, or any claims which depend from claims 18 and 19, unpatentable.

IV. The Proposed Combination of Johansson and Rasmussen Does Not Render Claims 26 and 28 Unpatentable

The Applicant now turns to the rejection of claims 26 and 28 as being unpatentable over Johansson as applied in claims 11 and 25 and in view of Rasmussen. Initially, Applicant respectfully submits that claims 26 and 28 should be in condition for allowance for at least the reasons discussed above.

Johansson does not describe, teach, or suggest "[t]he updatable electronic device of claim 25, wherein the information identifying the source of the update information comprises a universal resource locator (URL)," as recited in claim 26. Nor does Johansson describe, teach, or suggest "downloading the update information from a remote server identified in the user removable electronic memory device," as recited in claim 28. The Office Action acknowledges that Johansson does not disclose these limitations. *See* May 2, 2007 Office Action at pages 12-13. To overcome these deficiencies in Johansson, the Office Action cites Rasmussen.

Rasmussen "relates to data communication devices, and in particular to a method of remotely downloading firmware to a communication device (e.g. a modem) through a communication network." *See* Rasmussen at column 1, lines 7-10. The Office Action asserts the following excerpt from Rasmussen discloses the claim 26 limitations that are missing from Johansson, *see* May 2, 2007 Office Action at page 12:

> Downloading updated software (e.g. through the Internet) is commonly used as a means of distributing software updates, but requires intervention by the user. Each of these methods is undesirable because each creates inconvenience for the user. Because of the inconvenience, many users will not attempt to upgrade the firmware unless forced to do so because of problems using the modem, which means that the user is already experiencing dissatisfaction with the modem. Additionally, the

> manufacturer of the modem is forced to rely on others to distribute and install the update loads, and thus cannot be confident that all customers' modems are operating with the latest firmware.
>
> There therefore remains a need for a method of updating firmware of a communication device, under remote control and with minimum disruption to the user.
>
> SUMMARY OF THE INVENTION
>
> It is an object of the invention to provide a method of remotely updating firmware saved in FLASH memory, with minimum user-perceivable disruption in the operation of the communication device.
>
> It is a further object of the present invention to provide a method of remotely updating firmware saved in FLASH memory, in which operation of the communication device is protected in the event of a failure during an attempted update operation.

Rasmussen at column 3, lines 2-28 (underline added). The Office Action further asserts that "it is recognized in the art to use URL for downloading through internet protocol in the art." *See* May 2, 2007 Office Action at page 12.

Similarly, the Office Action points to the following excerpt from Rasmussen as disclosing the claim 28 limitations that are missing from Johansson, *see id.* at page 13:

> In addition to programmed routines for controlling communications functionality of the communication device 1, the application logic 24 in accordance with the invention includes procedures for managing the FLASH memory 8, and for writing data to the FLASH memory 8. Accessed using the API, these procedures permit the firmware 20 to be updated under the control of either the host computer 12 or through the network 4 by an update server 16 at the manufacturer's site 18 (FIG. 1). Exemplary API commands for accessing this functionality are shown in Table

> 1 below. It should be understood that Table 1 below is exemplary only, and is not necessarily comprehensive.

Rasmussen at column 7, lines 61-67 (underline added).

Rasmussen discusses using a URL or a remote server to download updates. As addressed above, Johansson only discloses an electronic device which retrieves upgrades from a SUM card. Johansson does not describe, teach, or suggest a SUM card which allows the electronic device to retrieve upgrades from another location, let alone a SUM card with information identifying the source of the upgrade, such as a URL or a remote server.

The proposed combination of Johansson and Rasmussen does not describe, teach, or suggest the limitation of "[a] removable electronic memory device...," which "comprises information related to the updating of the at least a portion of the at least one of firmware and software," as recited in claim 1, "wherein the information related to the updating of the at least one of firmware and software comprises information identifying the source of the update information received by the electronic device," as recited in claim 25 which depends from claim 1, "wherein the information identifying the source of the update information comprises a universal resource locator (URL)," as recited in claim 26 which depends from claim 25. (underline added) Additionally, the proposed combination of Johansson and Rasmussen does not describe, teach, or suggest the step of "downloading the update information from a remote server identified in the user removable electronic memory device," as recited in claim 28. For at least these reasons, Applicant respectfully submits that the proposed combination of Johansson and Rasmussen does not render claims 26 or 28 unpatentable.

V. The Proposed Combination of Johansson, Ericsson, and Rasmussen Does Not Render Claim 29 Unpatentable

Finally, the Applicant turns to the rejection of claim 29 as being unpatentable over Johansson in view of Ericsson as applied in claim 19 and further in view of Rasmussen. Initially, Applicant respectfully submits that claim 29 should be in condition for allowance for at least the reasons discussed above.

Johansson and Ericsson do not describe, teach, or suggest "[t]he method of claim 19, wherein the location of at least one of the update package and the server comprises a universal resource locator (URL)," as recited in claim 29. The Office Action acknowledges that Johansson and Ericsson do not disclose this limitation. *See* May 2, 2007 Office Action at page 14. To overcome this deficiency in Johansson and Ericsson, the Office Action cites to the same portion of Rasmussen discussed above with respect to claim 26.

While Rasmussen discusses using a URL to download updates, Applicant respectfully submits that Rasmussen does not disclose a removable electronic memory device comprising information which comprises a URL. Rasmussen, Johansson, and Ericsson do not describe, teach, or suggest the limitation wherein "the information from the user removable electronic memory device comprises the location of at least one of the update package and the server," as recited in claim 19 from which claim 29 depends, "wherein the location of at least one of the update package and the server comprises a universal resource locator (URL)," as recited in claim 29. Thus, for at least these reasons, the proposed combination does not render claim 29 unpatentable.

VI. Conclusion

Applicant respectfully submits that the pending claims of the present application should be in condition for allowance for at least the reasons discussed above, and request reconsideration of the claim rejections.

Respectfully submitted,

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CLAIMS APPENDIX
(37 C.F.R. § 41.37(C)(1)(VIII))

1. An updatable electronic device comprising:

a memory comprising at least one of firmware and software;

at least one firmware component, functioning to update at least a portion of at least one of firmware and software using update information stored in the memory;

an interface for communicatively coupling to a removable electronic memory device; and

wherein the removable electronic memory device comprises information related to the updating of the at least a portion of the at least one of firmware and software.

2. The device of claim 1 wherein the at least one firmware component comprises:

an update agent for updating the at least a portion of the at least one of firmware and software, the update agent using the update information and the information related to the updating of the at least one of firmware and software.

3. The device of claim 1 further comprising:

a communication interface for receiving the update information.

4. The device of claim 3 wherein the communication interface is a wireless communication interface.

5. The device of claim 2 wherein the update information comprises an update package containing a set of instructions executable by the update agent for updating the at least a portion of the at least one firmware and software.

6. The device of claim 1 wherein the information related to the updating of the at least one firmware and software comprises at least one of a cyclic redundancy check (CRC), a location in a file system, a memory address, a status flag, and new firmware.

7. The device of claim 1 wherein the information related to the updating of the at least one firmware and software comprises an indication of the availability of update information for the at least one of a firmware and software.

8. The device of claim 1 wherein the information related to the updating of the at least one firmware and software comprises an indication of the success of an update of the at least one of firmware and software.

9. The device of claim 1 wherein the information related to the updating of the at least one firmware and software is used to verify or authenticate an update of the at least one of firmware and software.

10. The device of claim 1 wherein the removable electronic memory device comprises one of a subscriber identity module (SIM) card, a smart card, an integrated circuit (IC) card, a removable memory card, and a removable memory module.

11. A method of updating an updatable electronic device comprising a memory containing at least one of firmware and software, and a user removable electronic memory device, the method comprising:

retrieving information from the user removable electronic memory device;

determining whether update information for updating the at least one of firmware and software is available in the memory, using information from the user removable electronic memory device;

performing an update of at least a portion of the at least one of firmware and software using at least information from the user removable electronic memory device, if update information for updating the at least one of firmware and software is available in the memory; and

refraining from performing an update of at least a portion of the at least one of firmware and software, if update information for updating the at least one of firmware and software is not available in the memory.

12. The method of claim 11 wherein the user removable electronic memory device comprises one of a subscriber identity module (SIM) card, a smart card, an integrated circuit card, a removable memory card, and a removable memory module.

13. The method of claim 11 wherein the updatable electronic device is a mobile handset.

14. The method of claim 11 wherein the information from the user removable electronic memory device comprises at least one of a signature, a location in a file system, a memory address, a status flag, and new firmware.

15. The method of claim 14 wherein the signature comprises a cyclic redundancy check (CRC).

16. The method of claim 11 wherein the information from the user removable electronic memory device comprises an indication of the availability of update information for updating the at least a portion of the at least one of a firmware and software.

17. The method of claim 11 wherein the information from the user removable electronic memory device is used to verify or authenticate an update of the at least a portion of the at least one of a firmware and software.

18. The method of claim 11 further comprising:

receiving update information comprising an update package from a server; and

the update package comprising a set of instructions for updating the at least a portion of the at least one firmware and software.

19. The method of claim 18 wherein:

the receiving is performed using a wireless network; and

the information from the user removable electronic memory device comprises the location of at least one of the update package and the server.

20. The method of claim 11 further comprising:

storing status information in the user removable electronic memory device, if an update was performed; and

refraining from storing status information in the user removable electronic memory device, if an update was not performed.

21. The method of claim 11 further comprising:

performing at least one of restarting or rebooting the updatable electronic device.

22. The method of claim 21 wherein at least one of a need to restart or reboot and a type of reboot is resident in the user removable electronic memory device.

23. The method of claim 11 wherein the determining comprises:

verifying whether the retrieved information is at least one of appropriate and authentic;

continuing the performance of an update, if the verification is successful; and

executing a normal startup of the updatable electronic device, if the verification is not successful.

24. The updatable electronic device of claim 1, wherein the update information comprises at least one update package.

25. The updatable electronic device of claim 1, wherein the information related to the updating of the at least one of firmware and software comprises information identifying the source of the update information received by the electronic device.

26. The updatable electronic device of claim 25, wherein the information identifying the source of the update information comprises a universal resource locator (URL).

27. The method of claim 11, wherein the update information comprises at least one update package.

28. The method of claim 11, wherein the determining comprises:

downloading the update information from a remote server identified in the user removable electronic memory device.

29. The method of claim 19, wherein the location of at least one of the update package and the server comprises a universal resource locator (URL).

EVIDENCE APPENDIX
(37 C.F.R. § 41.37(C)(1)(IX))

(1) United States Patent No. 5,418,837 ("Johansson"), entered into record in Office Action mailed November 14, 2006.

(2) United States Patent No. 6,556,842 ("Ericsson"), entered into record in Office Action mailed November 14, 2006.

(3) United States Patent No. 6,640,334 B1 ("Rasmussen"), entered into record in Office Action mailed May 2, 2007.

RELATED PROCEEDINGS APPENDIX
(37 C.F.R. § 41.37(C)(1)(X))

Not Applicable.